## EQIS, Inc.

20 June 2006

Mr. Robert McCaig DOI Project Coordinator US Bureau of Reclamation (86-68580) Denver Federal Center P.O. Box 25007 Denver, CO 80255-0007

RE: Krejci Dump Site Remedial Action

May 2006 West Hines Hill Road, roadside samples.

Dear Mr. McCaig:

Roadside samples on West Hines Hill Road were collected at the intersection of the bicycle trail with the road as requested by the Department of Interior. The samples collected on 23 May 2006 represent the approximate mid-point of the West Site debris and soil removal. The sample was collected about 13 feet to the south of the intersection. Grass was removed from the soil surface and the soil sample was collected over a 0.5-foot diameter area to a depth of about 0.1 foot. The soil was homogenized in place and placed in laboratory-provided containers. The containers were placed on ice in a cooler and shipped to Severn-Trent Laboratories North Canton (STL) by overnight carrier under chain-of-custody.

The samples were tested as follows:

- metals content (USEPA SW-846, Method 6010B, mercury by Method 7470A)
- leachable metals' concentrations by the Toxicity Characteristic Leaching Procedure (TCLP, USEPA SW-846 Method 1311)
- polychlorinated biphenyls (PCBs, USEPA SW-846, Method 8082)

. The samples met the QA/QC requirements as established in the USEPA methods and meet NELAP requirements for applicable parameters. However, the Bureau of Reclamation, Conestoga Rover Associates, and the laboratory have not yet reached a consensus regarding the validity of laboratory analyses under the site-specific Quality Assurance Project Plan. The STL analytical report is attached.

This is the second round of roadside sampling events. The results of the October 2005 and May 2006 sampling events are summarized in Table 1 (attached). The latest results found no measurable PCB concentrations, comparable to the October 2005 results. The PCB concentrations for both sampling events were below remediation goals. The May 2006 and October 2005 also found no detectable leachable metals' concentrations. No remediation goals were established for leachable metals' concentrations. The May 2006 metals' concentrations show no consistent trends in concentrations among the eight analytes when compared to the October results. The differences appear to reflect the variability in concentration in the soil. The metals' contents are below site remediation goals and below background concentrations.

Please contact Bernd Rehm at 608.669.1249 or at <a href="mailto:brend">brehm@resolutionpartnerslic.net</a> with questions.

Sincerely,

Bernd W. Rehm PG, CPG

Krejci Site Manager

Attachments: Table 1. Summary of analyses.

STL Analysis Report

Table 1
Summary of W. Hines Hill Road Roadside Soil Sample Analyses (collected at bicycle-trail crossing).
Krejci Dump Site Remedial Action

	13-Oct-05	23-May-06	Remediation Goals <sup>a</sup>	Background Maximum <sup>b</sup>	Site Maximum <sup>b</sup>
Soil Composition (mg/kg, dry we	ight)				
Aroclor 1016	<0.040	<0.049	0.075	$NA^{d}$	<5.138
Aroclor 1221	< 0.040	<0.049	0.075	NA	0.0900
Aroclor 1232	< 0.040	<0.049	0.075	NA	0.0500
Aroclor 1242	<0.040	< 0.049	0.075	NA	16.00
Aroclor 1248	<0.040	< 0.049	0.075	NA	3,300
Aroclor 1254	<0.040	< 0.049	0.075	NA	11,900
Aroclor 1260	<0.040	<0.049	0.075	NA	9.792
Arsenic	5.9	6.3	13 (30)	27	298
Barium	41.3	50.1	210 (220)	165	13,374
Cadmium	<0.61	< 0.75	0.57 (1.3)	<1	455
Chromium	27.3	16.1	31 (35)	NA	1,829
Lead	12.4	49.2	100	123	52,245
Mercury	<0.12	<0.15	1.7 (2.4)	5	32
Selenium	<0.61	< 0.75	1.9 (14)	2	224
Silver	<1.2	<1.5	17	<1.6	629
Leachable Metals (mg/L by TCLF	P <sup>c</sup> )				
Arsenic	<0.50	< 0.50	none	NA	NA .
Barium	<10.0	<10.0	none	NA	NA
Cadmium	<0.10	< 0.10	none	. NA	NA
Chromium	<0.50	<0.50	none	NA	NA
Lead	< 0.50	<0.50	none	NA	NA
Mercury	<0.0020	<0.0020	none	NA	NA
Selenium	<0.25	< 0.25	none	NA	NA
Silver	<0.50	< 0.50	none	NA	NA

#### Notes:

<sup>(</sup>a) Consent Order (2002). Appendix D. Tier 1 goals (Tier 2 goals, where applicable, are in parenthesis)

<sup>(</sup>b) Bureau of Reclamation (2000). Final Remedial Investigation Report, Krejci Dump Site, Cuyahoga Valley National Recreation Area.

<sup>(</sup>c) USEPA SW-846, Method 1311, Toxicity Characteristic Leaching Procedure

<sup>(</sup>d) Not analyzed.



STL North Canton 4101 Shuffel Drive NW North Canton, OH 44720

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#### ANALYTICAL REPORT

W. Hines Hill Road roadside soil sampling 23 May 2006

PROJECT NO. 1401200-003

KREJCI DUMP SITE, BOSTON HTS, OH

Lot #: A6E250373

Mick Warner

EQ Industrial Services 2701 N. I-94 Service Drive Ypsilanti, MI 1378738

SEVERN TRENT LABORATORIES, INC.

Amy L. McCormick

se Heckler for:

Project Manager

June 7, 2006

#### CASE NARRATIVE

A6E250373

The following report contains the analytical results for one solid sample submitted to STL North Canton by EQ Industrial Services from the Krejci Dump Site, Boston Hts,OH Site, project number 1401200-003. The sample was received May 25, 2006, according to documented sample acceptance procedures.

STL utilizes USEPA approved methods in all analytical work. The sample presented in this report was analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. Preliminary results were provided to Bernd Rehm on June 06, 2006. A summary of QC data for these analyses is included at the back of the report.

STL North Canton attests to the validity of the laboratory data generated by STL facilities reported herein. All analyses performed by STL facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. STL's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by a dry weight adjustment footnote at the bottom of the analytical report page. The list of parameters which are never reported on a dry weight basis is included on the Sample Summary.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

If you have any questions, please call the Project Manager, Amy L. McCormick, at 330-497-9396.

This report is sequentially paginated. The final page of the report is labeled as "END OF REPORT." The total number of pages in this report is 29.

# SUPPLEMENTAL QC INFORMATION

#### SAMPLE RECEIVING

The temperature of the cooler upon sample receipt was 1.3°C.

# CASE NARRATIVE (continued)

## POLYCHLORINATED BIPHENYLS-8082

The analytical results met the requirements of the laboratory's QA/QC program.

#### **METALS**

The analytical results met the requirements of the laboratory's QA/QC program.

## GENERAL CHEMISTRY

The analytical results met the requirements of the laboratory's QA/QC program.

#### QUALITY CONTROL ELEMENTS OF SW-846 METHODS

STL North Canton conducts a quality assurance/quality control (QA/QC) program designed to provide scientifically valid and legally defensible data. Toward this end, several types of quality control indicators are incorporated into the QA/QC program, which is described in detail in QA Policy, QA-003. These indicators are introduced into the sample testing process to provide a mechanism for the assessment of the analytical data.

Environmental samples are taken through the testing process in groups called QUALITY CONTROL BATCHES (QC batches). A QC batch contains up to twenty environmental samples of a similar matrix (water, soil) that are processed using the same reagents and standards. STL North Canton requires that each environmental sample be associated with a QC batch.

Several quality control samples are included in each QC batch and are processed identically to the twenty environmental samples. These QC samples include a METHOD BLANK (MB), a LABORATORY CONTROL SAMPLE (LCS) and, where appropriate, a MATRIX SPIKE/MATRIX SPIKE DUPLICATE (MS/MSD) pair or a MATRIX SPIKE/SAMPLÉ DUPLICATE (MS/DU) pair. If there is insufficient sample to perform an MS/MSD or an MS/DU, then a LABORATORY CONTROL SAMPLE DUPLICATE (LCSD) is included in the QC batch.

LABORATORY CONTROL SAMPLE

The Laboratory Control Sample is a QC sample that is created by adding known concentrations of a full or partial set of target analytes to a matrix similar to that of the environmental samples in the QC batch. The LCS analyte recovery results are used to monitor the analytical process and provide evidence that the laboratory is performing the method within acceptable guidelines. All control analytes indicated by a bold type in the LCS must meet acceptance criteria. Failure to meet the established recovery guidelines requires the repreparation and reanalysis of all samples in the QC batch. The only exception is that if the LCS recoveries are biased high and the associated sample is ND (non-detected) for the parameter(s) of interest, the batch is acceptable.

At times, a Laboratory Control Sample Duplicate (LCSD) is also included in the QC batch. An LCSD is a QC sample that is created and handled identically to the LCS. Analyte recovery data from the LCSD is assessed in the same way as that of the LCS. The LCSD recoveries, together with the LCS recoveries, are used to determine the reproducibility (precision) of the analytical system. Precision data are expressed as relative percent differences (RPDs). If the RPD fails for an LCS/LCSD and yet the recoveries are within acceptance criteria, the batch is still acceptable.

METHOD BLANK

The Method Blank is a QC sample consisting of all the reagents used in analyzing the environmental samples contained in the QC batch. Method Blank results are used to determine if interference or contamination in the analytical system could lead to the reporting of false positive data or elevated analyte concentrations. All target analytes must be below the reporting limits (RL) or the associated sample(s) must be ND except under the following circumstances:

Common organic contaminants may be present at concentrations up to 5 times the reporting limits. Common metals contaminants may be present at concentrations up to 2 times the reporting limit, or the reported blank concentration must be twenty fold less than the concentration reported in the associated environmental samples. (See common laboratory contaminants listed below.)

Volatile (GC or GC/MS)	Semivolatile (GC/MS)	Metals ICP-MS	Metals ICP Trace
Methylene Chloride, Acetone, 2-Butanone	Phthalate Esters	Copper, Iron, Zinc, Lead, Calcium, Magnesium, Potassium, Sodium, Barium, Chromium, Manganese	Copper, Iron, Zinc, Lead

#### QUALITY CONTROL ELEMENTS OF SW-846 METHODS (Continued)

- Organic blanks will be accepted if compounds detected in the blank are present in the associated samples at levels 10 times the blank level. Inorganic blanks will be accepted if elements detected in the blank are present in the associated samples at 20 times the blank level.
- Blanks will be accepted if the compounds/elements detected are not present in any of the associated environmental samples.

Failure to meet these Method Blank criteria requires the repreparation and reanalysis of all samples in the QC batch.

#### MATRIX SPIKE/MATRIX SPIKE DUPLICATE

A Matrix Spike and a Matrix Spike Duplicate are a pair of environmental samples to which known concentrations of a full or partial set of target analytes are added. The MS/MSD results are determined in the same manner as the results of the environmental sample used to prepare the MS/MSD. The analyte recoveries and the relative percent differences (RPDs) of the recoveries are calculated and used to evaluate the effect of the sample matrix on the analytical results. Due to the potential variability of the matrix of each sample, the MS/MSD results may not have an immediate bearing on any samples except the one spiked; therefore, the associated batch MS/MSD may not reflect the same compounds as the samples contained in the analytical report. When these MS/MSD results fail to meet acceptance criteria, the data is evaluated. If the LCS is within acceptance criteria, the batch is considered acceptable. The acceptance criteria do not apply to samples that are diluted for organics if the native sample amount is 4x the concentration of the spike.

For certain methods, a Matrix Spike/Sample Duplicate (MS/DU) may be included in the QC batch in place of the MS/MSD. For the parameters (i.e. pH, ignitability) where it is not possible to prepare a spiked sample, a Sample Duplicate may be included in the QC batch. However, a Sample Duplicate is less likely to provide usable precision statistics depending on the likelihood of finding concentrations below the standard reporting limit. When the Sample Duplicate result fails to meet acceptance criteria, the data is evaluated.

#### SURROGATE COMPOUNDS

In addition to these batch-related QC indicators, each organic environmental and QC sample is spiked with surrogate compounds. Surrogates are organic chemicals that behave similarly to the analytes of interest and that are rarely present in the environment. Surrogate recoveries are used to monitor the individual performance of a sample in the analytical system.

If surrogate recoveries are biased high in the LCS, LCSD, or the Method Blank, and the associated sample(s) are ND, the batch is acceptable. Otherwise, if the LCS, LCSD, or Method Blank surrogate(s) fail to meet recovery criteria, the entire sample batch is reprepped and reanalyzed. If the surrogate recoveries are outside criteria for environmental samples, the samples will be reprepped and reanalyzed unless there is objective evidence of matrix interference or if the sample dilution is greater than the threshold outlined in the associated method SOP.

For the GC/MS BNA methods, the surrogate criterion is that two of the three surrogates for each fraction must meet acceptance criteria. The third surrogate must have a recovery of ten percent or greater.

For the Pesticide, PCB, and PAH methods, the surrogate criterion is that one of two surrogate compounds must meet acceptance criteria.



STL North Canton Certifications and Approvals:

California (#01144CA), Connecticut (#PH-0590), Florida (#E87225), Illinois (#200004), Kansas (#E10336), Minnesota (#39-999-348), New Jersey (#OH001), New York (#10975), Ohio (#6090), OhioVAP (#CL0024), Utah (#QUAN9), West Virginia (#210), Wisconsin (#999518190), NAVY, ARMY, USDA Soil Permit, ACIL Seal of Excellence – Participating Lab Status Award (#82)

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# EXECUTIVE SUMMARY - Detection Highlights

#### A6E250373

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
RD-3b 05/23/06 13:45 001  Arsenic Lead Barium Chromium Percent Solids	6.3 49.2 50.1 16.1 67.0	1.5 0.45 29.8 1.5	mg/kg mg/kg mg/kg mg/kg %	SW846 6010B SW846 6010B SW846 6010B SW846 6010B MCAWW 160.3 MOD

# ANALYTICAL METHODS SUMMARY

#### A6E250373

PARAMETER		ANALYTICAL METHOD
Inductive Mercury i Mercury i PCBs by S	ly Coupled Plasma (ICP) Metals n Liquid Waste (Manual Cold-Vapor) n Solid Waste (Manual Cold-Vapor) W-846 8082 idue as Percent Solids uctively Coupled Plasma (ICP) Metals	SW846 6010B SW846 7470A SW846 7471A SW846 8082 MCAWW 160.3 MOD SW846 6010B
Reference	s:	
MCAWW	"Methods for Chemical Analysis of Water EPA-600/4-79-020, March 1983 and subseq	and Wastes", uent revisions.
SW846	"Test Methods for Evaluating Solid Wast	e, Physical/Chemical

Methods", Third Edition, November 1986 and its updates.

## SAMPLE SUMMARY

A6E250373

370EE (C								<u> </u>			
/			÷		. (						
H57XW	001	RD-3b		•		•				05/23/06	13:45
WO #	SAMPLE#	CLIENT	SAMPLE	ID	······································		 		<del></del>	DATE	TIME
										SAMPLED	SAMP

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Client Sample ID: RD-3b

#### GC Semivolatiles

Date Received:	05/25/06	Matrix: SO
Method:	SW846 8082	
	REPORTING	
RESULT	LIMIT	UNITS
ND	49	ug/kg
ИD	49	ug/kg
ИD	49	ug/kg
PERCENT RECOVERY 93 72	RECOVERY LIMITS (10 - 127) (40 - 138)	
	Date Received: Analysis Date: Method:  RESULT ND ND ND ND ND ND ND ND ND PERCENT RECOVERY 93	RESULT         LIMIT           ND         49           ND         LIMITS           ECOVERY         LIMITS           93         (10 - 127)

NOTE(S):

Results and reporting limits have been adjusted for dry weight.

#### Client Sample ID: RD-3b

#### TOTAL Metals

Matrix..... SO

Lot-Sample #...: A6E250373-001

Date Sampled...: 05/23/06 13:45 Date Received..: 05/25/06

% Moisture....: 33

PARAMETER	RESULT	REPORTING LIMIT UNITS	METHOD	PREPARATION- WORK ANALYSIS DATE ORDER #
Prep Batch #. Mercury	.: 6146031 ND	0.15 mg/kg Dilution Factor: 1	SW846 7471A	05/26-05/30/06 H57XW1AL
Arsenic	6.3	1.5 mg/kg Dilution Factor: 1	SW846 6010B	05/26-05/30/06 H57XW1AH
Barium	50.1	29.8 mg/kg Dilution Factor: 1	SW846 6010B	05/26-05/30/06 H57XW1AD
Cadmium	ND	0.75 mg/kg	SW846 6010B	05/26-05/30/06 H57XW1AE
Lead	49.2	0.45 mg/kg Dilution Factor: 1	SW846 6010B	05/26-05/30/06 H57XW1AJ
Chromium	16.1	1.5 mg/kg Dilution Factor: 1	SW846 6010B	05/26-05/30/06 H57XW1AF
Selenium	ND	0.75 mg/kg Dilution Factor: 1	SW846 6010B	05/26-05/30/06 H57XW1AK
Silver	ND ·	1.5 mg/kg Dilution Factor: 1	SW846 601.0B	05/26-05/30/06 H57XW1AG

Results and reporting limits have been adjusted for dry weight.

#### Client Sample ID: RD-3b

#### TCLP Metals

Lot-Sample #...: A6E250373-001

Matrix....: SO Date Sampled...: 05/23/06 13:45 Date Received..: 05/25/06

Leach Date....: 05/30/06

Leach Batch #..: P615011

	. DECAME	REPORTING	G UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER_#_
PARAMETER	RESULT	DIPLI	ONTIO			
Prep Batch #	.: 6151042 ND	0.50	mg/L	SW846 6010B	05/31/06	H57XW1AM
Arsenic	מא	Dilution Fact		B11010 00-1-	, .	
*		Directon race	301. 1			
Barium	ND	10.0	mg/L	SW846 6010B	05/31/06	H57XW1AN
Darram	21	Dilution Fact	<del>-</del>			
•		•				
Cadmium	ND .	0.10	mg/L	SW846 6010B	05/31/06	H57XW1AP
•		Dilution Fac	tor: 1	•		
	•		,	CTTO ( C. COT OD	05/31/06	H57XW1AQ
Chromium	ND		mg/L	SW846 6010B	02/21/00	II J / M II I Z
		Dilution Fac	tor: 1			
	MD	0.50	mg/L	SW846 6010B	05/31/06	H57XW1AR
Lead	ND	Dilution Fac	-	DNO10 00202		
		princion rac				
Selenium	ND	0.25	mg/L	SW846 6010B	05/31/06	H57XW1AT
perenram	212	Dilution Fac	<del>-</del>			
Silver	ND	0.50	mg/L	SW846 6010B	05/31/06	H57XW1AU
		Dilution Fac	tor: 1			
•			/-	GETO 4.C. 5.47.07	05/31/06	H57XW1AV
Mercury	ND	0.0020	mg/L	SW846 7470A	05/31/06	115 / 2011
•		Dilution Fac	tor: 1			
1						
NOTE(S):				1.4044		

Analysis performed in accordance with USEPA Toxicity Characteristic Leaching Procedure Method 1311

Client Sample ID: RD-3b

#### General Chemistry

Matrix..... S0

Lot-Sample #...: A6E250373-001 Work Order #...: H57XW

Date Sampled...: 05/23/06 13:45 Date Received..: 05/25/06

% Moisture....: 33

 PARAMETER
 RESULT
 RL
 UNITS
 METHOD
 ANALYSIS
 DATE
 BATCH #

 Percent Solids
 67.0
 10.0
 %
 MCAWW 160.3 MOD
 05/26-05/27/06
 6146459

Dilution Factor: 1



# QUALITY CONTROL SECTION

#### GC Semivolatiles

Client Lot #...: A6E250373

Work Order #...: H58P61AA

Matrix..... SOLID

MB Lot-Sample #: A6E260000-033

Prep Date....: 05/26/06 Prep Batch #...: 6146033

Analysis Date..: 06/02/06

Dilution Factor: 1

REPORTING

		REPORTI	NG		
	RESULT	LIMIT	UNITS	METHOD	
PARAMETER Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254 Aroclor 1260	RESULT ND ND ND ND ND ND	33 33 33 33 33 33 33 33	ug/kg ug/kg ug/kg ug/kg ug/kg ug/kg	SW846 8082 SW846 8082 SW846 8082 SW846 8082 SW846 8082 SW846 8082 SW846 8082	
SURROGATE Tetrachloro-m-xylene Decachlorobiphenyl	PERCENT RECOVERY 107 91	RECOVER LIMITS (10 - 1 (40 - 1			

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### TOTAL Metals

Client Lot #...: A6E250373

PREPARATION-WORK REPORTING ANALYSIS DATE ORDER # METHOD  $\underline{\mathtt{UNITS}}$ LIMIT PARAMETER MB Lot-Sample #: A6E260000-031 Prep Batch #...: 6146031 05/26-05/30/06 H58P41A2 SW846 7471A mg/kg 0.10 Mercury Dilution Factor: 1 05/26-05/30/06 H58P41AE SW846 6010B mg/kg 1.0 Arsenic NDDilution Factor: 1 05/26-05/30/06 H58P41AA SW846 6010B mg/kg 20.0 ND Barium Dilution Factor: 1 05/26-05/30/06 H58P41AD SW846 6010B mg/kg 0.50 ND Cadmium Dilution Factor: 1 05/26-05/30/06 H58P41AF SW846 6010B mg/kg 0.30 ND Lead Dilution Factor: 1 05/26-05/30/06 H58P41AQ SW846 6010B mg/kg 1.0 ND Chromium Dilution Factor: 1 05/26-05/30/06 H58P41AG SW846 6010B 0.50 mg/kg ND Selenium Dilution Factor: 1 05/26-05/30/06 H58P41AN mg/kg SW846 6010B ND Silver Dilution Factor: 1

Calculations are performed before rounding to avoid round-off errors in calculated results.

NOTE(S):

#### TCLP Metals

Client Lot #...: A6E250373

MB Lot-Sample #: A6E300000-430         Prep Batch #: 6151042           Leach Date: 05/30/06         Leach Batch #: P615011           Arsenic         ND 0.50 mg/L SW846 6010B         05/31/06         H6ENW12           Barium         ND 10.0 mg/L SW846 6010B         05/31/06         H6ENW12           Cadmium         ND 0.10 mg/L SW846 6010B         05/31/06         H6ENW12           Cadmium         ND 0.10 mg/L SW846 6010B         05/31/06         H6ENW12           Chromium         ND 0.50 mg/L SW846 6010B         05/31/06         H6ENW12           Dilution Factor: 1         Dilution Factor: 1	#_
Barium ND 10.0 mg/L SW846 6010B 05/31/06 H6ENW1.  Cadmium ND 0.10 mg/L SW846 6010B 05/31/06 H6ENW1.  Chromium ND 0.50 mg/L SW846 6010B 05/31/06 H6ENW1.	.AC
Cadmium ND 0.10 mg/L SW846 6010B 05/31/00 Dilution Factor: 1  Chromium ND 0.50 mg/L SW846 6010B 05/31/06 H6ENW1.	.AD
Chromium ND 0.50 mg/L SW846 6010B 03/31/00	LAE
	lAF
Lead ND 0.50 mg/L SW846 6010B 05/31/06 H6ENW1 Dilution Factor: 1	1AG
Selenium ND 0.25 mg/L SW846 6010B 05/31/06 H6ENW1 Dilution Factor: 1	1AH '
Silver ND 0.50 mg/L SW846 6010B 05/31/06 H6ENW1	1AJ
Mercury ND 0.0020 mg/L SW846 7470A 05/31/06 H6ENW1	1AA

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### TCLP Metals

Client Lot #	: A6E25037	3			Matrix SC	LID
PARAMETER	RESULT	REPORTIN LIMIT	G UNITS	METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
MB Lot-Sampl	e #: A6E31000 ND	0-042 Prep F 0.50 Dilution Fac	mg/L	: 6151042 SW846 6010	oB 05/31/06	H6E691AU
Barium	ND	10.0	mg/L	SW846 6010	OB 05/31/06	H6E691AV
Cadmium	ND	0.10 Dilution Fac	mg/L ctor: 1	SW846 6010	OB 05/31/06	H6E691AW
Chromium	ND	0.50 Dilution Fac	mg/L ctor: 1	SW846 6010	OB 05/31/06	H6E691AX
Lead	ND	0.50 Dilution Fa	mg/L ctor: 1	SW846 6010	0B 05/31/06	H6E691A0
Selenium	ND	0.25 Dilution Fa	mg/L ctor: 1	SW846 601	OB 05/31/06	H6E691A1
Silver	ND	0.50 Dilution Fa	mg/L ctor: 1	SW846 601	OB 05/31/06	H6E691A2
Mercury	ND	0.0020 Dilution Fa	mg/L ctor: 1	SW846 747	0A 05/31/06	H6E691AJ
						\

Calculations are performed before rounding to avoid round-off errors in calculated results.

#### General Chemistry

Client Lot #...: A6E250373

Matrix..... SOLID

PARAMETER RESULT Percent Solids ND	REPORTING LIMIT UNITS  Work Order #: H6A641AA 10.0 % Dilution Factor: 1	METHOD  MB Lot-Sample #:	PREPARATION- ANALYSIS DATE A6E260000-459 05/26-05/27/06	PREP BATCH # 6146459
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NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Matrix....: SOLID Work Order #...: H58P61AC Client Lot #...: A6E250373

LCS Lot-Sample#: A6E260000-033

Analysis Date..: 06/05/06 Prep Date....: 05/26/06

Prep Batch #...: 6146033

Dilution Factor: 1

PARAMETER Aroclor 1016 Aroclor 1260	PERCENT RECOVERY 93 105	RECOVERY LIMITS (41 - 130) (42 - 130)	METHOD SW846 8082 SW846 8082
SURROGATE  Tetrachloro-m-xylene Decachlorobiphenyl	•	PERCENT RECOVERY 90 106	RECOVERY LIMITS (10 - 127) (40 - 138)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot #:	A6E250373		Matrix: SOLID
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS METHOD	PREPARATION- ANALYSIS DATE WORK ORDER #
LCS Lot-Sample#: Mercury	A6E260000-	031 Prep Batch #: 6146031 (73 - 123) SW846 7471A Dilution Factor: 1	05/26-05/30/06 H58P41CT
Barium	91	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41A3
Arsenic	88	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41A6
Cadmium	91	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41A5
Lead	89	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41A7
Selenium	91	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41A8
Chromium	87	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41CH
Silver	101	(80 - 120) SW846 6010B Dilution Factor: 1	05/26-05/30/06 H58P41CF

NOTE (S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# LABORATORY CONTROL SAMPLE EVALUATION REPORT

#### TCLP Metals

Client Lot #:	A6E250373		Matrix	: SOLID
PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS METHOD	PREPARATION- ANALYSIS DATE	WORK ORDER #
LCS Lot-Sample#: Arsenic	Д6Е310000- 95	042 Prep Batch #: 6151042 (50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A3
Barium	101	(50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A4
Cadmium	100	(50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A5
Chromium	105	(50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A6
Lead	101	(50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A7
Selenium	102	(50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A8
Silver	114	(50 - 150) SW846 6010B Dilution Factor: 1	05/31/06	H6E691A9
Mercury	116	(50 - 150) SW846 7470A Dilution Factor: 1	05/31/06	H6E691AT
		_		

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

#### GC Semivolatiles

Client Lot #...: A6E250373 Work Order #...: H56TA1AP-MS Matrix.....: SOLID

MS Lot-Sample #: A6E250217-003 H56TA1AQ-MSD

Date Sampled...: 05/23/06 14:20 Date Received..: 05/25/06 Prep Date....: 05/26/06 Analysis Date..: 06/02/06

Prep Batch #...: 6146033

Dilution Factor: 1 % Moisture....: 9.2

PARAMETER Aroclor 1016 Aroclor 1260	PERCENT  RECOVERY  150  135  81  91	RECOVERY LIMITS (10 - 200) (10 - 200) (10 - 200) (10 - 200)	10 11	RPD LIMITS (0-30) (0-30)	METHOD SW846 8082 SW846 8082 SW846 8082 SW846 8082	<u> </u>
SURROGATE Tetrachloro-m-xylene Decachlorobiphenyl	<u>.</u>	PERCENT RECOVERY 79 77 72 75		RECOVERY LIMITS (10 - 127 (10 - 127 (40 - 138 (40 - 138	7)	

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

Results and reporting limits have been adjusted for dry weight.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

#### TOTAL Metals

Client Lot #	: A6E25	0373 /06 08:40 Date Received.	.: 05/25/06	Matrix: SOLID
Date Sampled	PERCENT RECOVERY	RECOVERY RPD LIMITS RPD LIMITS	METHOD	PREPARATION- WORK ANALYSIS DATE ORDER #
MS Lot-Sampl	e #: A6E25	0186-015 Prep Batch #	.: 6146031	% Moisture: 26
Mercury	96 96	(10 - 199) (10 - 199) 0.08 (0-50) Dilution Factor: 1	SW846 7471A	05/26-05/30/06 H56NM1DN 05/26-05/30/06 H56NM1DP
Arsenic	82 83	(75 - 125) (75 - 125) 1.1 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1AR 05/26-05/30/06 H56NM1AT
Barium	87 89	(75 - 125) (75 - 125) 1.9 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1AC 05/26-05/30/06 H56NM1AD
Cadmium	85 86	(75 - 125) (75 - 125) 1.0 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1AJ 05/26-05/30/06 H56NM1AK
Lead	81 83	(75 - 125) (75 - 125) 1.9 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1AV 05/26-05/30/06 H56NM1AW
Chromium	94 98	(75 - 125) (75 - 125) 2.7 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1CR 05/26-05/30/06 H56NM1CT
Selenium	86 87	(75 - 125) (75 - 125) 1.5 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1A0 05/26-05/30/06 H56NM1A1
Silver	93 94	(75 - 125) (75 - 125) 1.6 (0-20) Dilution Factor: 1	SW846 6010B SW846 6010B	05/26-05/30/06 H56NM1CK 05/26-05/30/06 H56NM1CL

MOTE (C)

Calculations are performed before rounding to avoid round-off errors in calculated results.

Results and reporting limits have been adjusted for dry weight.

# MATRIX SPIKE SAMPLE EVALUATION REPORT

#### TCLP Metals

Client Lot #	: A6E25	0373 /06 Date Received: 09	5/24/06	Matrix	: SOLID
PARAMETER	PERCENT RECOVERY	RECOVERY RPD LIMITS RPD LIMITS MET		PREPARATION- ANALYSIS DATE	WORK ORDER #
MS Lot-Sampl Leach Date Arsenic	e #: A6E24 : 05/30 98 100	(50 - 150)	151042 615011 46 6010B 46 6010B	05/31/06 05/31/06	H54H11A6 H54H11A7
Barium	98 100		46 6010B 46 6010B	05/31/06 05/31/06	H54H11A9 H54H11CA
Cadmium	102 106		346 6010B 346 6010B	05/31/06 05/31/06	H54H11CD H54H11CE
Chromium	105 108		846 6010B 846 6010B	05/31-06/01/00 05/31-06/01/00	5 H54H11CG 5 H54H11CH
Lead	104 106		846 6010B 846 6010B	05/31/06 05/31/06	H54H11CK H54H11CL
Selenium	102 105		846 6010B 846 6010B	05/31/06 05/31/06	H54H11CN H54H11CP
Silver	99 101		9846 6010B 9846 6010B	05/31/06 05/31/06	H54H11CR H54H11CT
Mercury	112 107		N846 7470A N846 7470A	05/31/06 05/31/06	H54H11A3 H54H11A4
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Calculations are performed before rounding to avoid round-off errors in calculated results.

## SAMPLE DUPLICATE EVALUATION REPORT

#### General Chemistry

Client Lot #...: A6E250373 Work Order #...: H56TX-SMP Matrix....: SOLID

Date Sampled...: 05/23/06 13:30 Date Received..: 05/25/06

% Moisture...: 21

RPD

RPD

PREPARATION- PREP

ANALYSIS DATE

BATCH #

PARAM RESULT

UNITS RPD

LIMIT METHOD ANALYSIS DATE

BATCH #

Dilution Factor: 1

# hain of ustody Record

# SEVERIN STI® Severn Trent Laboratories, Inc.

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DISTRIBUTION: WHITE - Returned to Client with Report: CANARY - Stays with the Sample: PINK - Field Copy

TI Conlar Receint	: Form/Narrafive	Lot Number AC	W250	
orth Canton Facil		· D mo Quote	# 7/1/8/5	
lient: EQ. Tad.S		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	by: 1-LXII	Signature)
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tetson US Cargo US TL Cooler No# <u>L</u> [9	Foam Box	Carrent to the carrie	her No []	NA 🗍
. Were custody seals on	the outside of the cooler? Yes	No LI Intact?	Yes 🛛 No 🗌	NV [_]
If YES, Quantity	<u>)                                     </u>		37 [] 374 []	
Were the custody seals	signed and dated?	Yes 🔀	No NA	
Shipper's packing slip	attached to this form?		No NA NA	J71 No.[7]
Did custody papers ac	company the samples? Yes 441.00		shed by client? Yes	THE THE L.
<ul> <li>Did you sign the custo</li> </ul>	dy papers in the appropriate place	100 27	、No □	
" Da ataina matarial nead	· Bubble Wran I   Foam I	NOUS [		
Cooler temperature ur	ion receipt 1.3 °C (see back)	of form for multiple coolers	s/temp)	
CETTON Town Viall	Coolant & Sample     #	Agamst Boules	R ☑ ICE/H₂0 S	Slurry 🔲
VIDITUU, TOMP YMAL	Blue Ice Dry Ice	Water Non		
OULANI: WELLES T	n good condition (Unbroken)?	Yes	N₀ □	
/. Did all bottles arrive i	and/or tags be reconciled with the	COC? Yes	N₀ □	
Could all bottle lavels	and/or tags of record helow/on hack	Yes	☐ No ☐ NA	≰
Were samples at the c	orrect pH? (record below/on back)	Yes	Ā № 🗆	
10. Were correct bottles u	sed for the tests indicated?	Yes	——————————————————————————————————————	<b>Z</b>
11. Were air bubbles >6 r	nm in any VOA viais?		No □	
<ol><li>Sufficient quantity re</li></ol>	ceived to perform indicated analys	Were VOAs on the C		囚
an anti Production Dilamate mare	against in the cooler ( ) by   /   INU	71010 10110 001		
<ol><li>Does the trip blank n</li></ol>	umber match the cooler number in	windly it was recorred. To	il Verbal O	her 🔲
Contacted PM	Date:by:	Via Voiob 1720		
Concerning:				
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1. CHAIN OF CUSTO	<u>DY</u>	· · · · · · · · · · · · · · · · · · ·		
The following discre	epancies occurred:			
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2 SAMPLE CONDITI	ON		7 1 1 1 7 4	had awaired
2. SAMPLE CONDITI	we	re received after the recomm	mended holding time	had expired.
Sample(s)	we		mended holding time ontainer.	had expired.
Sample(s) Sample(s)	we	re received after the recomr were received in a broken c	ontainer.	
Sample(s) Sample(s) SAMPLE PRESER	VATION .	re received after the recommerce received in a broken c	ontainer.	ng to meet
Sample(s) Sample(s) Sample(s) Sample(s)	VATION	re received after the recommerce received in a broken c  were further preserves to the following solution and solutions are solutions and solutions are solutions and solutions are solutions and solutions are solutions are solutions.	ontainer.  ed in sample receivii 4; Sodium Hydroxide Lot#	ng to meet
Sample(s) Sample(s) Sample(s) Sample(s)	VATION  evel(s). Nitric Acid Lot # 122805-HNO3;	re received after the recommerce received in a broken c were further preserve sulfurio Acid Lot # 100405-H2SO-	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 <i>-NaOH</i> ;
Sample(s) Sample(s) SAMPLE PRESER Sample(s) recommended pH 1 Hydrochloric Acid Lot #	VATION  evel(s). Nitric Acid Lot # 122805-HNO3;	re received after the recommerce received in a broken c were further preserve sulfurio Acid Lot # 100405-H2SO-	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 <i>-NaOH</i> ;
Sample(s) Sample(s) 3. SAMPLE PRESER Sample(s) recommended pH 1 Hydrochloric Acid Lot # Sample(s)	We.  VATION  1.  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwer 1	re received after the recommerce received in a broken commerce were further preserved by the sulfuric Acid Lot # 100405-H2SO-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 <i>-NaOH</i> ;
Sample(s) Sample(s) SAMPLE PRESER Sample(s) recommended pH 1 Hydrochloric Acid Lot #	We.  VATION  1.  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwer 1	re received after the recommerce received in a broken commerce were further preserved for the following sulfuric Acid Lot # 100405-H2SO-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 <i>-NaOH</i> ;
Sample(s) Sample(s) Sample(s) Sample(s) recommended pH 1 Hydrochloric Acid Lot # Sample(s)	We  VATION  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwere:  were: back)	re received after the recommerce received in a broken control were further preserve Sulfuric Acid Lot # 100405-H280-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 -NaOH
Sample(s)  Sample(s)  3. SAMPLE PRESER  Sample(s)  recommended pH 1  Hydrochloric Acid Lot #  Sample(s)	We.  VATION  1.  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwer 1	re received after the recommere received in a broken commerce were further preserved further preserved to the second section of the	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 <i>-NaOH;</i> M)
Sample(s)     Sample(s)     3. SAMPLE PRESER     Sample(s)     recommended pH 1     Hydrochloric Acid Lot #     Sample(s)     4. Other (see below or	We  VATION  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwere:  were: back)	re received after the recommence received in a broken commence were further preserved by the sulfuric Acid Lot # 100405-H2SO-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  red in sample receivii 4; Sodium Hydroxide Lot#	ng to meet -100405 <i>-NaOH</i> ;
Sample(s)  Sample(s)  3. SAMPLE PRESER  Sample(s)  recommended pH 1  Hydrochloric Acid Lot #  Sample(s)	We  VATION  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwere:  were: back)	re received after the recommerce received in a broken control were further preserved further preserved and Lot # 100405-H280-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  ed in sample receiving the sample receiv	ng to meet -100405 <i>-NaOH</i> ; M)
Sample(s)     Sample(s)     3. SAMPLE PRESER     Sample(s)     recommended pH 1     Hydrochloric Acid Lot #     Sample(s)     4. Other (see below or	We  VATION  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwere:  were: back)	re received after the recommerce received in a broken control were further preserved further preserved and Lot # 100405-H280-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  ed in sample receiving the sample receiv	ng to meet -100405 <i>-NaOH</i> ; M)
Sample(s)     Sample(s)     3. SAMPLE PRESER     Sample(s)     recommended pH 1     Hydrochloric Acid Lot #     Sample(s)     4. Other (see below or	We  VATION  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwere:  were: back)	re received after the recommerce received in a broken control were further preserved further preserved and Lot # 100405-H280-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  ed in sample receiving the sample receiv	ng to meet -100405 <i>-NaOH;</i> M)
Sample(s)     Sample(s)     3. SAMPLE PRESER     Sample(s)     recommended pH 1     Hydrochloric Acid Lot #     Sample(s)     4. Other (see below or	We  VATION  evel(s). Nitric Acid Lot # 122805-HNO3; 100504-HCl; Sodium Hydroxide and Zinc Acwere:  were: back)	re received after the recommerce received in a broken control were further preserved further preserved and Lot # 100405-H280-cetate Lot # 071604-CH3COO2ZN received with bubble > 6 m	ontainer.  ed in sample receiving the sample receiv	ng to meet -100405 <i>-NaOH</i> ; M)

# STL Cooler Receipt Form/Narrative

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# END OF REPORT